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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/730,281	12/09/2003	Gon Kim	9988.095.00-US	2549
30827	7590	03/22/2006		
MCKENNA LONG & ALDRIDGE LLP 1900 K STREET, NW WASHINGTON, DC 20006			EXAMINER PATEL, RITA RAMESH	
			ART UNIT	PAPER NUMBER
			1746	
DATE MAILED: 03/22/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/730,281	KIM ET AL.	
	Examiner	Art Unit	
	Rita R. Patel	1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☒ Claim(s) 29 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>12/14/04, 02/23/05, 12/08/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

Acknowledgement has been made of applicant's claim for priority under 35 U.S.C. 119.

Drawings

The drawings received 12/09/03 are acceptable for examination purposes.

Claim Objections

Claim 29 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

In the written claim, claim 29 is dependent on claim 21, however Examiner believes this may be in err and claim 29 is actually dependent on claim 27. Please make appropriate corrections. For the purpose of examination, claim 29 will be examined as a dependent of claim 27.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-14, 16-17 and 32, 38-40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the

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subject matter which applicant regards as the invention. Applicant claims “fastening parts formed as a unit with the insulator, having fastening hole projected toward an inside of the helical type core for fastening the stator to the bearing housing”; it is not abundantly clear from the claim language the assembly of the apparatus described. Is applicant claiming fastening parts formed as a unit, comprising the entirety of the apparatus? Is the insulator considered solely a piece of said unit? Or are the fastening portions more integrally connected to the insulator, such that the insulator is inside, covering the hole opening of the fastener? Also, please clearly specify the arrangement of the fastening holes, which are claimed to be projected towards an inside of the helical type core.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 7, 15, 16, 18-20, 26 and 38 are rejected under 35 U.S.C. 102(b) as being anticipated by Smith et al. (US Patent No. 5,266,855) herein referred to as “Smith”.

Smith discloses an electric motor for a clothes washing machine; the motor includes a stator 25 held outboard of a frame carrying bearings 38, 39 in which a shaft 11 rotates, the shaft carrying the rotor 15 outboard of the stator 25 (Abstract). A water

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container 3 is suspended within the cabinet 1 by suspension rods 4 and springs 5 (col. 4, lines 50-51). Said water container is preferably an injection molding (col. 5, lines 42-43); an injection molding may include plastics, hence reading on applicant's claim for a plastic tub. Contained within the water container 3 there is a perforated spin tub 6 and within the spin tub is an agitator 7 (col. 4, lines 58-60) connectively attached for driving the spin tub. The spin tub 6 comprises of a stainless steel perforated hollow cylinder 45 fixed to a plastic extruded base 46 (col. 6, lines 4-5). This satisfies applicant's claim wherein the tub is injection molded.

Additionally, Smith teaches bearings 38, 39 which are held in place by mountings 27, 28 positioned in a space tube 40 used for supporting the drive shaft 11 (col. 5, lines 63-65). The space tube reads on applicant's claim of a bearing housing have a sleeve form of bearing supporting part. The stator 25 and rotor 15 are mounted on the rear wall of the water container 3, as seen in Figures 1, 2 and 5 of Smith, such that the rotor securement screw 92 and bolt 41 are used to hold the rotor-stator assembly within the unit and screw 71 fixes the upper and lower bearing frames 32, 33 in place, for supporting the rotor-stator assembly thereunder. The stator and rotor are taught by Smith to be mounted on the rear wall because they are located on the wall opposite the lid; the lid would be located on the top of the apparatus as seen in Figure 1, hence the rear wall would be the bottom wall of said apparatus. The stator is formed as an annular helical yoke edgewise wound from a strip of material, whereby the strip is edgewise wound about pole pieces coinciding in stacked groups to form a plurality of poles arranged at equally spaced intervals extending radially outwardly from the outer face of

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the yoke (Abstract); the pole pieces read on applicant's claim for tooth portions that may be welded parts of the stacked layers. Smith further discloses that the insulation for windings on the poles of the core consists of a top insulating molding 22 and bottom insulating molding 23 whereby the windings are wound about the moldings of each pole. The core of the stator 25 comprises a strip of magnetic material, preferably a silicon steel alloy or other low hysteresis steel (col. 5, lines 21-23), which reads on applicant's claim wherein the helical type core is from steel.

Re claims 18-20, Smith diagrams in Figure 9 the stator 25 having equidistant extensions protruding radially, whereby the poles 8 form an perpendicular extension; this reads on applicant's claim wherein the stator includes an extension in an outward radial direction from the cylindrical bearing support part, having steps along the radial direction at preset intervals and the fastening part includes alternate outward radial direction extensions connectively arranged perpendicular to the extensions. Additionally it can be seen in Figure 9 that the steps in between the equidistant extensions are shaped rectangular-like and/or trapezoidal-like.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-6, 8-14, 17, 21-25, 27-37, 39 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith as applied to claims above.

Claims 2, 5, 8 and 12 are rejected appropriately under claims 1, 4, 7 and 11. Smith discloses the claimed invention except for an explicit specification of the height ratio of the fastening part to the total stack height. It would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the fastening part of the apparatus such that the height is an optimal value for performing durable and effective fastening functions. Since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Claims 3, 6, 9, 10, 13, 14, 21-25 and 29-31 are rejected appropriately under claims 1, 4, 7, 11, 15 and 27. Smith discloses it would be preferable to produce the bearing frames 32, 33 from the same mold or set of dies to ensure the bearing moldings are concentric with locating pins or dimples 34 and corresponding holes 35 at the periphery of the frames, and also that the external angle 36 in which the inner corner 37 of the stator 25 fits with an interference fit (col. 5, lines 54-58). Although Smith does disclose teaching fastening the bearing frame with locating pins or dimples into corresponding holes, Smith does not expressly disclose using a spring pin, a metal tube press fit, a boss, a rivet, ribbed fastening part or circumferentially ribbed fastening part for fastening said apertures. However, it would have been an obvious equivalence to one having ordinary skill in the art at the time the invention was made to use spring pins, metal tube press fits, bosses, rivets, ribbed fasteners or circumferentially ribbed

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fasteners for fastening since applicant has not shown that spring pins, metal tube press fits, bosses, rivets, ribbed fasteners or circumferentially ribbed fasteners have a criticality. It appears that the invention would perform equally well with other fasteners and the selection of any of these known equivalents to provide fastening functions would be within the level of ordinary skill in the art.

Claims 4, 11 and 17 are rejected appropriately under claim 15 and recitation of Smith as shown above, Smith discloses the claimed invention except Smith fails to teach three or more than three fastening holes projected toward an inside of the helical type core for fastening the stator to the bearing housing. As aforementioned, screw 71 is used to fix the stator to the bearing housing and it would be obvious to one of ordinary skill in the art to affix multiple screws thereupon for holding the stator to the bearing housing to achieve a stronger, more reinforced hold. It is well settled that the mere duplication of parts has no patentable significance unless a new and unexpected result is produced. *In re Harza*, 124 USPQ 378 (CCPA 1960).

Re claims 27, 28, 32-37 and recitation of Smith as shown above, Smith discloses the claimed invention except Smith fails to explicitly teach a weight heavier than 1.5 kg for the stator for mounting on the stator fastening part of the bearing housing. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to establish an optimal weight requirement for the stator to achieve appropriate immobility of the stator since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Claims 39 and 40 are rejected appropriately under claim 38 and recitation of Smith as shown above, Smith discloses the claimed invention except Smith fails to explicitly teach the material of the base 29, located in between the water container 3 and the spin tub 6. See Figure 1. The base 29 is used as a support by means of support columns 30 reinforced with stiffening webs 31 (col. 5, lines 43-44). However, it would be obvious to one of ordinary skill in the art at the time of the invention to use a metal material for base 29, as Smith clearly delineates the bearing frames and spin tub within the apparatus may be made of metal (col. 5, lines 47-48; col. 6, line 4); metal is a commonly known material in the art for making components of washing apparatuses. Additionally, Smith's aforementioned teaching of the injection molded tub combined with the disclosure of base 29 located directly below the tub, as shown in Figure 1, teaches applicant's claim wherein the tub is injection molded in a state where the tub supporting plate is buried in the tub.

Conclusion

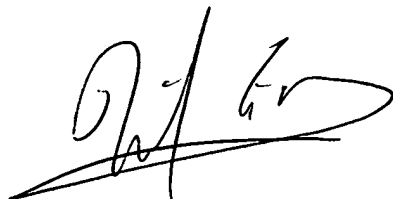
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rita R. Patel whose telephone number is (571) 272-8701. The examiner can normally be reached on M-F: 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571) 272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RRP



MICHAEL BARR
SUPERVISORY PATENT EXAMINER